

Docket No. AM1562D1

IN THE CLAIMS

Claims 1-10 (canceled)

Claim 11 (new) A plasma anisotropic etchant for a silicon-containing substrate mounted on a substrate electrode in a plasma etch chamber, said plasma formed between two electrodes in a vacuum chamber, the first electrode comprising a gas inlet electrode and the second electrode comprising an RF powered substrate electrode, that etches deep, straight walled, rounded bottom openings in silicon, wherein the plasma is formed from a gaseous mixture of hydrogen bromide, oxygen, and sulfur hexafluoride.

Claim 12 (new). An etchant according to claim 11 wherein said gaseous mixture further includes a noble gas.

Claim 13. An etchant according to claim 11 wherein the volume ratio of hydrogen bromide to sulfur hexafluoride is 0.1 to 10.

14. An etchant according to claim 11 wherein the volume ratio of hydrogen bromide to sulfur hexafluoride and oxygen is 0.1 to 10.